SEQ ID NO.1 FIG.1 a

	•
GAATTCCCCCAACAGAGCCAAGCTCTCCATCTAGTGGACAGGGAAGCTAGCAGCAAACC	59(U.PER:SEA I) NO:19 19(LOWER:SEA I) NO:19
TTCCCTTCACTACAAACTTCATTGCTTGGCCAAAAAGAGAGAG	119 39
TATGTAGGCAATTAAAAACCTATTGATGTATAAAACAGTTTGCATTCATGGAGGGCAAC	179 59
TAAATACATTCTAGGACTTTATAAAAGATCACTTTTTATTTA	239 79
ATGGATTATCAAGTGTCAAGTCCAATCTATGACATCAATTATTATACATCGGAGCCCTGC	299
MDYQVSSPIYDINYYTSEPC	99
CAMAAAATCAATGTGAAGCAAATCGCAGCCCGCCTCCTGCCTCCGCTCTACTCACTGGTG	359
QKINVKQIAARLLPPLYSLV	119
TICATCTTTGGTTTTGTGGGCAACATGCTGGTCATCCTCATCCTGATAAACTGCAAAAGG	419
FOIF G F V G N M L V I L I N C K R	139
	479
CICAAGAGCATGACTGACATCTACCTGCTCAACCTGGCCATCTCTGACCTGTTTTTCCTT LIN K S M T D I Y L L N L A I S D L F F L	159
-	539
CTTACTGTCCCCTTCTGGGCTCACTATGCTGCCGCCCAGTGGGACTTTGGAAATACAATG	179
W T V F F M A	
TGTCAACTCTTGACAGGGCTCTATTTTATAGGCTTCTTCTCTGGAATCTTCTTCATCATC	599
CQLLTGLYFIGFFSGIFFII	199
CTCCTGACAATCGATAGGTACCTGGCTGTCGTCCATGCTGTGTTTGCTTTAAAAGCCAGG	659
L L T I D R Y L A V V H A V F A L K A R	219
ACGGTCACCTTTGGGGTGACAAGTGTGATCACTTGGGTGGTGGCTGTTTTGCGTCT	719 .
T V T F G V V T S V I T W V V A V F A S	239
	779
CTCCCAGGAATCATCTTTACCAGATCTCAAAAAGAAGATCTTCATTACACCTGCAGCTCT	259
L P G I I F T R S Q K E G L H Y T C S S	• .
CATTTTCCATACA	

H F P Y

GAA	TTC	CCC	CAA	.CAG	AGC	CAA	GCT	CTC	CAT	CTA	GTG	GAC	AGG	GAA	GCI	CAGC	AGC	אאג	CC.		5EQ W NO:2, SEQ W NO.5,
TTCC	CTI	'CAC	TAC	'AAA	ACT	TCA	TTG	CTI	GGC	CAA	AAA	AGAG	AGT	TAA	TTC	TAAT	GTA	AGAC	LAT	119 39	
CTAT	GTA	.GGC	TAAT	TAA	LAAA	.CCI	'ATT	'GA'	(GT	ATA?	LAA(ZAGT	TTC	CAT	TC	ATGO	AGO	:GCI	AAC	179 59	
TAAA	\TA(AT	CTA	\GG2	ACTI	TAT	AAA	\AG2	ATC.	ACT	TT.	rat.	rta:	rgcz	ACA(GGT	rgg/	AAC?	AAG	239 79	
																~~~	77/26	~~~	ייבר	299	
ATGG	مان د	ייי איי	מבר	<u>፡</u> ጥር-ገ	CAA	GTC	CA	YTC:	TAT(GAC	ATC	AAT	TAT.	ratz	ACA'	I.C.C.	THE	CCC.	200	99	
		Y.		v	S	S	P	I	Y	D	I	N	Y	Y	T	S	E.	r	<u>_</u>	,,,	
M												_			am C	ma 🕾	יראי	بتكشب	ביויב	359	•
c		י ייי	<u>አ አጥ</u> ሃ	2TG	AAGO	TAAZ	ATCO	3CA	GCC	CGC	CTC	CTG	CCT	CCG	CIC	TAC	ا (م	CIG	77	119	
CAAA		_	N	v	K	0	I	A	A	R	L	L	P	P	L	Y	5	יי	٧	110	
\mathcal{G}	K.					-											ma.a	333	אככ	419	
Щ.	. m~	- 10 - 10 - 10 - 10 - 10 - 10 - 10 - 10	سندت	الملعلة	GTG	igC)	AAC	ATG	CTG	GTC	ATC	CTC	ATC	CTG	ATA	AAC	166	HHH. T	AGG	139	
			G	F	v	G	N	Μ	L	V	I	L	I	L	I	N	C	V	K	137	
¥	I	F	_	_	•	_									_				CITTI	479	
∏ C <u>T</u> G	~		3 m/C	አ ረግፕ	רא פי	א תיכיי	TAC	CTG	CTC	AAC	CTG	GCC	ATC	TCT	GAC	CTG	T_{-1}	TTC	CIT	159	
CTG				ACI T	GAC D	I	Y	L	L	N	L	Α	I	S	D	L	F	F.	14	139	
Ŧ.	K	S	M	_	_	_	_	_	_											539	
5 			~~~	,	نصصن	سرس	CAC	بالانت	GCT	'GCC	GCC	CAG	TGG	GAC	TTT	'GGA	AAT	'ACA	ATG M	179	
CTT.		GTC	CCC	TIC	W	3 7	H	Y	A	A	A	Q	W	D	F	G	N	T	M	1/9	
	T		P	F		_		_												599	
14					~~~	حسر	ጥልጥ	Latata	בידבי	GGC	TTC	TTC	TCT	'GGA	OTA	TTC	TTC	ATC	ATC I	-	
	CAA	CTC	TIG	ACA	.GG3	L	Y.	F	I	G	F	F	S	G	I	F	F	I	Ţ	199	
Œ	Q	L	L	T							_									CE0	
늗					13 CC	m 3 C	مليات	بترسا	יכידר	GTC	CAT	GC1	GTC	TT	GC1	TTP	AAA	<i>I</i> GCC	AGG R	659 31.9	
	CTG	ACA	ATC	:GAT	AGG	THC	L	として	V.	V	H	A	V	F	A	L	K	Α	R	219	
\mathbf{L}_{\cdot}	L	T	I	D	R														·	710	
							יה רי	א כים	רכיתר	ጋጥ ረ ድ	"בר	rigo	GTO	GTO	GC:	rgro	TT	rgco	STCT S	719	
ACG	GTC	ACC	TT	rGGG	GTG V	ال کام 17	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	S	77	I	T	W	V	V	Α	V	F	A	S	239	
				_	-							-								750	
					.,	13 CC	יי די	י ייי	י בייין	בבב	GAZ	AGG"	rcT	rca:	TTA	CAC	CTG	CAG	CTCT S	779	
CTC		\GG2	ATC	ATC	T.T.T	ACC	スジス	2 I C .	. CA	K	E	G	L	H	Y	T	C	S	S	259	
L	P	G	I	I	F.	1	K	3	¥			•								020	
•		•									~ ~ ~ (THIN	~~~	7 A C	بلسل لا	AAA(GAT	AGT	CATC	839	•
CAI	TT.	rcci	ATA(CAG"	LCAG	1'A'l	البيكة الم	다. 7 T T 7	ひょう	Y X	N	F	0	Т	L	K	I	V	I	279	
H	F	P	Y	S	Q	Y	Q	E	**	10	••	_	~								

SEQ ID NO.2 FIG.1b

	GGG		ama	CEC		~~~	المعلن	בידיר	<u>አ</u> ጥር	CTC	מדכ	ጥርር	TAC	TCG	GGA	ATC	CTA	AAA	ACT	899
	GGG G		V V		P	L	L	V	M	v	I	C	Y	S	G	I	L	K	T	299
CTC	CTT	CCC	ጥርፕ	ירהש	ТАД	GAG	AAG.	AAG	AGG	CAC	AGG	GCT	GTG	AGG	CTT	ATC	TTC	ACC	ATC	959
	L L			R	N	Ε	K	K	R	H	R	A	V	R	L	I	F	T	I	319
አ ጥና	ATT	لملث	TAT	111	CTC	TTC	TGG	GCT	CCC	TAC	AAC	ATT	GTC	CTT	CTC	CTG	AAC	ACC	TTC	1019
М	I	V	Y	F	L	F	W	A	P	Y	N	I	٧	L	יו	1.	14	1	E	339
GD C	:GAA	كتك	احلماء	ינגנ	CTG	TAA	'AAT	TGC	AGT	AGC	TCT	'AAC	AGG	TTG	GAC	CAA	GCT	ATG	CAG	1079
Q	Ξ	F	F	G	L	N	N	С	S	S	S	N	R	Ţ	ע	Q	A	141	¥	359
~~~	ACA	GNG	מים מי	لملس	التجادة	ATG	ACG	CAC	TGC	TGC	ATC	'AAC	CCC	ATC	ATC	TAT	GCC	TTT	GTC	1139
V	T	E	T	L	G	M	T	H	С	С	I	N	Þ	1	1	I	A	E	•	379
~~	GAG	336	كالملية	ישכי	מבב	"TAC	CTC	TTA	GTC	TTC	TTC	CAA	AAG	CAC	ATT	GCC	AAA	CGC	TTC	1199
G		K	F	R	N	Y	L	L	V	F	F	Q	ĸ	H	I	A	ĸ	R	F	399
	CAAA	m~~ (	س	لماناما	ובני עים	ملمك	יר בה	CDA	GAG	GCI	CCC	GAG	CGA	.GCA	AGC	TCA	GTT	TAC	ACC	1259
TGC	<u>TAAA</u> K	C	C	S	I	F	Q	Q	E	A	P	Ξ	R	A	S	S	V	Y	T	419
ca:	<b>⊡</b> CC	ים כיי	744	iga(	3CAC	GAA	ATA	TCT	GTG	iGGC	TTG	TGA	CAC	:GGA	CTC	AAG	TGG	GCT	GGT	1319
R	Ψ̈́S	T	G	E	Q	Ε	I	S	V	G	Ŀ	×								439
GA	成 如 如	GTC	CAG	AGT	rgte	CAC	ATG	GCI	TAC	TTI	TC	TAC	ACA	\GCC	TGG	GCI	'GGG	GGT	NGG	1379 459
	=======================================									cmc		M 7 C	13 <i>C</i> C	, , ,	لا لامتد	Car	-דיר <i>ב</i>	ጥሮር	ידיד בי	1439
	ù \$₹W IA	IGA(	GT(	CTT.	rrr.	TAAF	LAGG	AAG	112	rc.i.c	3 T. T.Y	1 TAC	)T)As	3G T C	, I.A.A.	CAI	. 1 🛶			479
TA	ELIC	:GĊ	ATC:	rgr:	rta <i>i</i>	\AGT	TAGA	TTA	\GAT	CCC	CAA	TC								
	ũ																			
	N																			
	=																			
	ring.																			

SEQ ID NO.2 (SUITE)

FIG.1c

GAA	T	CCC	:CAA	.C.3.G	AGC	CAA	.GCT	CTC	CAT	CTA	AGTO	-GAC	lago	<b>:</b> GAJ	AGCT	CAGC	AGC	AAA	łCC		R:SER II) NAS R:SER IV NO. L
TTCC	CTI	CAC	TAC	AAA	ACT	TCA	TTG	CTT	GGC	CAF	<b>VAA</b> Z	AGAC	AG:	ΓΤΑ	ATT(	CAAT	GTA	(GA	TAT	119 39	
CTAI	GT	\GG(	TAA	TA	laa.	ACCI	ATT	GAT	GTA	TAZ	AAA(	CAGT	TT	GCA'	TTC	ATGO	AGG	GC	AAC	179 59	
TAA	ATA	LAT!	CTA	\GG#	ACTI	TAT	'AAA'	AGA	TCA	CT	rrr.	rat:	TA?	TGC:	ACA(	GG:	rggz	ACI	AAG	239 79	
ATGG		TAT( Y	_	TG: V	rca/ s		CAA P	TCI I	ATC Y	ACI D	ATC	AAT N	TAT Y	TAT. Y	ACA' T	rcg( S	GAG( E	CCC	TGC C	299 99	
M C <del>P</del> A	AAA	ATC	AATO	TG	AAG	ZAAA	ATCG	CAC	CCC A	GC(	CTC!	CTG( L	CCT	CCG P	CTC L	TAC' Y	ICA( S	CTG( L	GTG V	359 119	
1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	K vec'		egur.	•	K GTG(	-					_	T CTC		CTG	AŢA	AAC'	rgc	AAA	AGG	419 139	
CIG	I	F	G	F	V	G	N	M	با	٧	Ŧ	بد	1	11	-	••	•			479	
냁	K	S	M	T	D	I	Y	L	L	N	L	A	1	3	ט	_	-	_	_	159 539	
Ħ	T	V	Ρ	F	W	A	Н	Y	A	A	A		**	ב	-					179	
TET E			TTG:		GGG G	CTC'	rat: Y	rrrz F	ATA( I	GGC G	TTC F	TTC F	TCT S	GGA G•	ATC I	TTC F	TTC F	ATC I	ATC I	599 199	
CHC	CTG		ATC	GAT	AGG R	TAC Y	CTG(	GCT(	GTC( V	GTC V	CAT H	GCT A	GTG V	TTI F	GCI A	TTA L	AAA K	GCC A	'AGG R	659 219	
ACG	GTC	ACC	TTT	GGG	GTG	GTG.	ACAI T	AGT	GTG.	ATC T	ACT T	TGG W	GTC V	GTG V	GCT A	GTG V	TTT F	GCG A	TCT S	719 239	
•	V CCA				V			mcm	~~ ~	2 2 2	(C) A	CCT	لسلت	CAT	OATT	ACC T	TGC	'AGC S	TCT S	779 259	<i>:</i>
L	Þ	G	Ι	I	F	T	R	S ~~~	COLOR Q	CCC	יברית	יבביז ייבביז	יירכיז	rgco	GC:	GCI	TGI	CAI	rggT	839 279	
H	F	P	Y	I	K	D	S	H	L	G	A	G	P	A	A	A	С	н	G	213	

SEQ ID NO.3

FIG.1d

CATCTGCTACTCGGGAATCCTAAAAACTCTGCTTCGGTGTCGAAATGAGAAGAAGAGGCA H L L L G N P K N S A S V S K *	899 299
CAGGGCTGTGAGGCTTATCTTCACCATCATGATTGTTTATTTTCTCTTCTGGGCTCCCTA	959 319
${\tt CAACATTGTCCTTGAACACCTTCCAGGAATTCTTTGGCCTGAATAATTGCAGTAG}$	1019 339
CTCTAACAGGTTGGACCAAGCTATGCAGGTGACAGAGACTCTTGGGATGACGCACTGCTG	1079 359
CATCAACCCCATCATCTATGCCTTTGTCGGGGAGAAGTTCAGAAACTACCTCTTAGTCTT	1139 379
CTTCCAAAAGCACATTGCCAAACGCTTCTGCAAATGCTGTTCTATTTTCCAGCAAGAGGC	1199 399
TCCCGAGCGAGCAAGCTCAGTTTACACCCGATCCACTGGGGAGCAGGAAATATCTGTGGG	1259 419
THE CTHE TO A CACGGACT CAAGTGGGCTGGTGACCCCAGTCAGAGTTGTGCACATGGCTTAGTT	1319 439
TIGATACACAGCCTGGGGGGTNGGTTGGNNGAGGTCTTTTTTAAAAGGAAGTTACT	1379 459
III GTTATAGAGGGTCTAAGATTCATCCATTTATTTGGCATCTGTTTAAAGTAGATTAGATCC	1439 479
O M GANTTC	
Li Con to NO 3 (CHITTE)	

SEQ ID NO.3 (SUITE)
FIG.1e

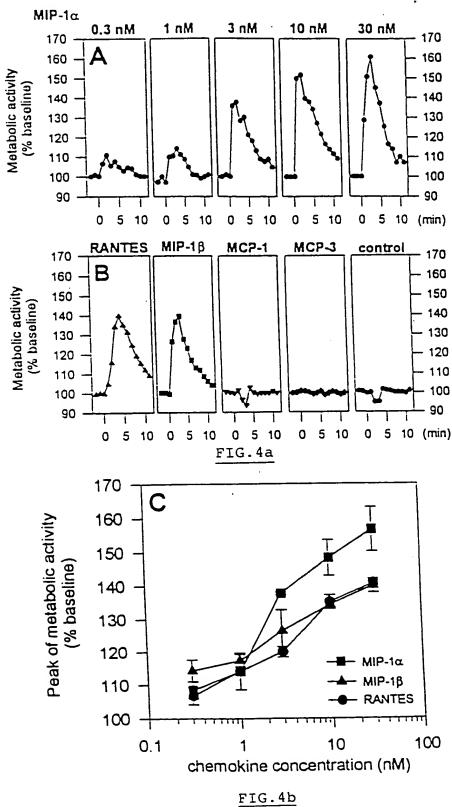
## FIG. 2

186 182 272 1.89 182 83 92 HICSHIFFHESLREWRLEGALKINLEGLVLPLLVMHCOYHSHIFHLLRREWRK.SKAVRLIENIMJEFELFMHEVNLTHITSVEOLELFTHE TYCKTKYSI**NST. 1WKVLSSLEINILGLVHPISTMFECYSMHRTLDHCKHEKK**.NKAVKMLEAVVVLFLGEWFPYNIVLFIJEIDEDLVELEVIDCO of Proliver Bettertertenten bry Labbural Kartwers over Svet Wilder Begin en fikklokkins V mst.Arwsvaveasr.PgF1[F|STCY1[E|Wig TICE HIERY SOY OF WINFOTTK 11/11.GLVI.PII.VMV ICY SGII.KTI.I.RCRNEKKRIIRAVRI.I FTIMI VY FI.FWAP YN I VI.II.NT FOE FFGI.NNG WATATTASMPGLYESKIYJMEE"IN HTMRN LIGIALIPLIAMATOYSGII.KPLIACRNEKKRIIRAANVI ETIMIAY ELEWIPYN IVIII.LINTEOEFFGI. MA FIRMPIEGLALIAMATOYIBATIKPIAKE**EN K**KATATATATATATATATATATETEMIPYNA 11.1.53374311.EGEPT IMOQLITTGI.YETGEFESGIFFIII.ITIDRYI.AMVIIAVFAI.KARTVTFGVVTSVITWAVAVFASI.PGITF"IR:{QKFCI|| II.INCKRLKSMTDIYLI.NI.AISDI(!:|FI| II.INCKALKCI PDIYLLNIAISPIL FKYKRIFSMTDWYLLNLAISDI ICIS LVINITALIMINITALINITAL SIGN NOYKRIKMATSIYLLNIAISDI. EGENIMALYER FETTI.ITINYIANINIAVEAINARIYAYEGVIITETVI pewinaki.korpwjedopwdkilijddphyiddiylddireriii.iiionyialibuaveaippartvregdifidii PEWISYKA DY OWNEGLGIJOKMI SWMLVGEMSGI EFFWIMSIDRYI.AI WII AVE**RM**ARJI UMBVI 1 MAYOVSSPINDINGY "SEPCONINVKOTHANILEPPLYSIVETFGEVGNMININ WEGLI GNSVVV MI"TSI[[]TVETFGTTSYYDDVGLI]JEJANDTRALAAZEVPPLYSLVETVALLISNVYVV MISTISHETHNINE SCEEVTIFF (POYGAPCH) (FTANKO) (ACLIPPLYSIAFIFGFUGHMIAN) (LPPLYSLVEV) MARTOTADTTLDESIYSNYYLYESIPKPONKEGIKAFGELHLPPLYSLVE METPNTTEDYDTTTEFCNGDATPCORVNERAFGAD P. WILLY VICINIMA F. COLCIMCIALLI HIDLOY SAMOUR PEWALLYAL acc-R2b hcc- R4 hcc- R4 acc-R2b ncc-42b 11CC--- P.1. ncc-33 NCC-X3 hcc-R1 ncc-R3 hcc-R4 hcc-R1 CCR5 CCR5 CCR5

360 355 360 ROTEHRINGANII. LAMMILPETSVORI ERMSCH', SI STGEHEH SAGE BOLEK MEGLEVICOYGSLIQIYSADT HSSSYTGSIMDHOLHDALI RASSVY HINDELLAH LIGRYTPELLEN SUNDANGV PETLGM PHICCINPILY AFVGEKFRYTH. VF PCKHTAKR. TEERY LOMANDARETTA EVHOCKNPIIY FERIGEK FRIKYTI HSFSQLDQAFJOVTETLGMPHCCINPLIYAFVGEKFRM WITEVIAY SHOCKEN WEYAR VGERREN QVFE{VIAYFIICC|V|\v|V|LYAEVGE| ncc- R2b ncc-R3 hcc- R4 ncc- R1

CCR5

HOTOMOUND "DOUGOOD



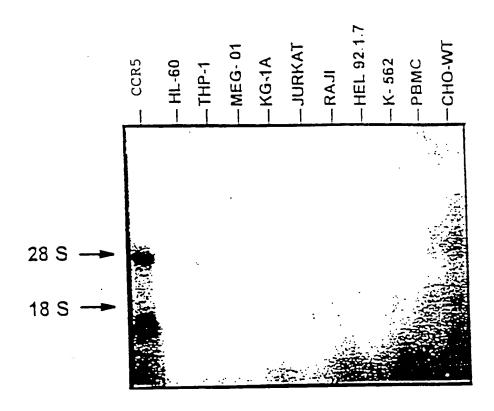
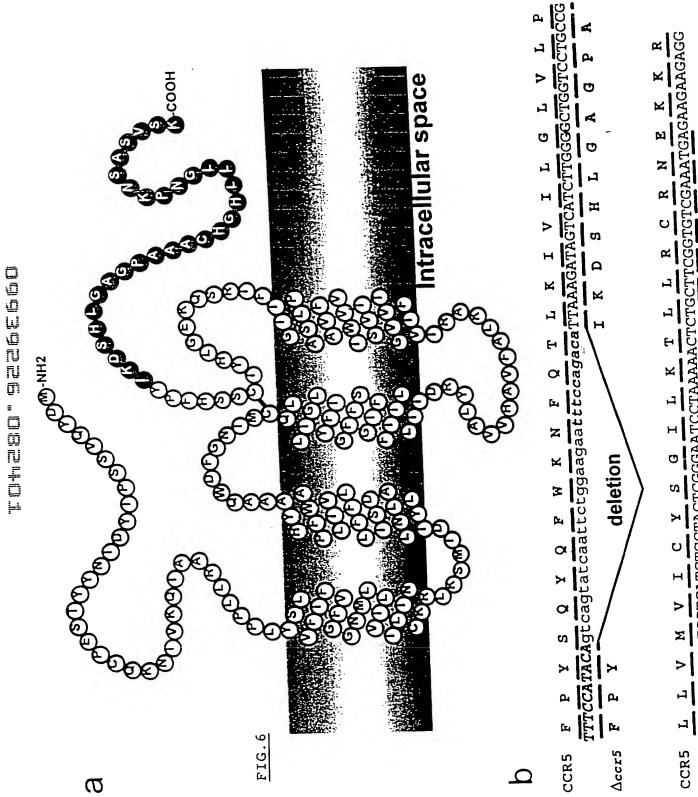
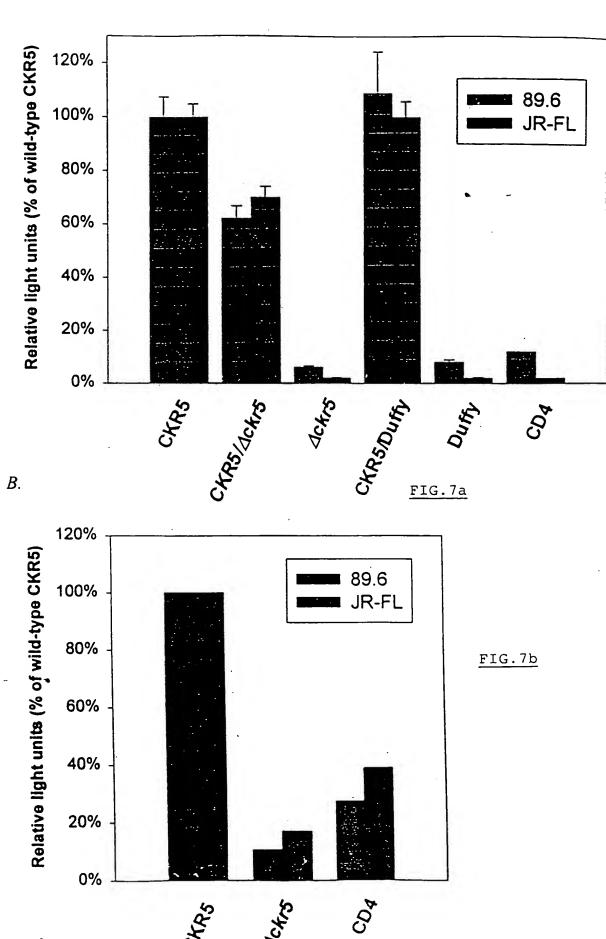


FIG.5







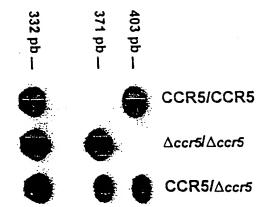
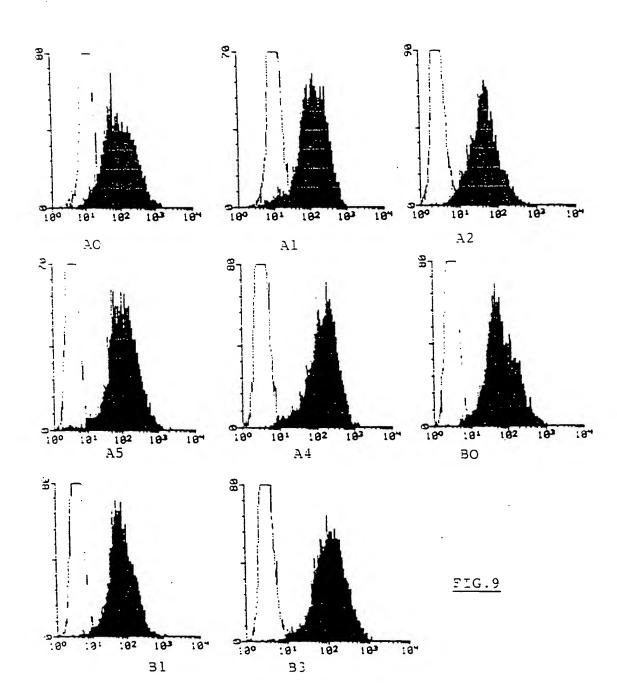


FIG.8



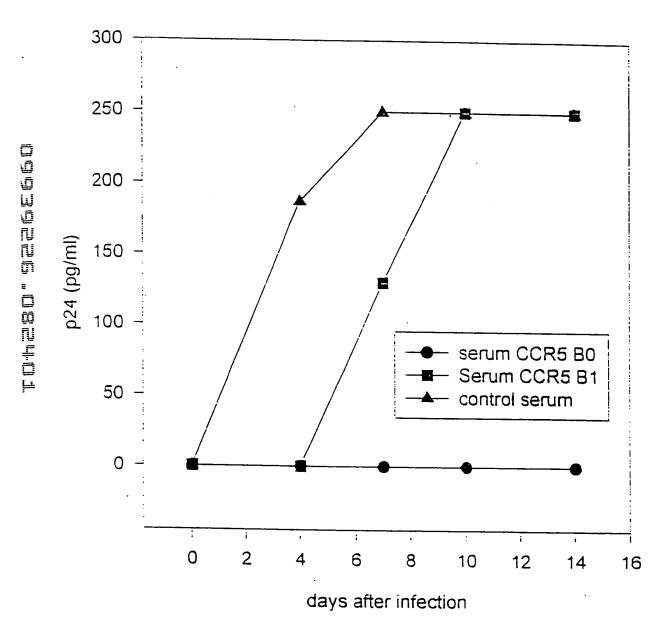


FIG.10